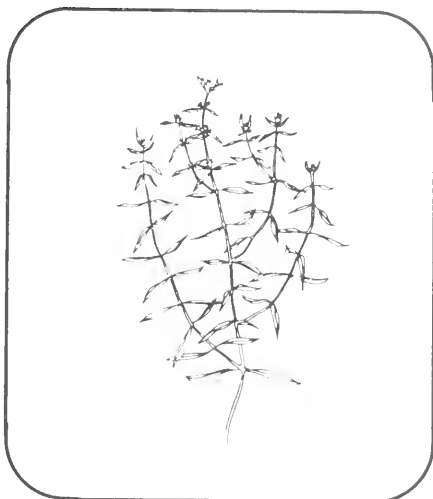




Agriculture
Canada

GROWING SAVORY HERBS

PUBLICATION 1158



Digitized by the Internet Archive
in 2011 with funding from
Agriculture and Agri-Food Canada – Agriculture et Agroalimentaire Canada



GROWING SAVORY HERBS

E. W. CHIPMAN
RESEARCH STATION
KENTVILLE, N.S.

PUBLICATION 1158, available from
Information Services, Agriculture Canada, Ottawa K1A 0C7

© Minister of Supply and Services Canada 1980
Cat. No. A53-1158/1980E ISBN: 0-662-10839-6
Printed 1968 Revised 1980 10M-6:80

Aussi disponible en français

CONTENTS

Introduction	5
Culture	5
Site	5
Soil and fertilizer	5
Propagation	6
Seed	6
Cuttings	6
Division	6
Layering	6
Care	6
Insects and diseases	6
Harvesting	7
Drying	7
Descriptions and Uses	7
Annuals	7
Anise	7
Sweet basil	7
Borage	9
Coriander	9
Dill	9
Summer savory	9
Biennials	9
Caraway	9
Parsley	9
Perennials	11
Balm	11
Chives	11
Sweet fennel	11
Garlic	11
Horehound	11
Hyssop	11
Sweet marjoram	11
Peppermint and spearmint	14
Rue	14
Sage	14
Sorrel	14
Thyme	14

INTRODUCTION

Savory herbs are plants whose leaves, flowers, or other parts are used for flavoring or seasoning foods. Most of them are true herbs, that is, their stems and leaves die down to the roots each fall. They may be annuals, biennials, or perennials. Most of them belong to one or other of the following six families: Boraginaceae or borage family, Compositae or aster family, Cruciferae or mustard family, Labitae or mint family, Liliaceae or lily family, and Umbelliferae or parsley family. The parsley and mint families are probably the most important ones.

This publication describes some of the more common savory herbs and tells how to grow them. General uses are given but the art of cooking with herbs is not covered. Most recipe books contain helpful suggestions for using herbs in cooking, but success usually depends on individual tastes and experimentation.

If you are growing herbs for the first time, it is a good idea to start with only a few of the popular and easily grown ones. Later on you can add others that need more attention or that have very special uses.

Large quantities of some herbs, such as summer savory and sage, are used commercially. Therefore a potential market exists for products of equal or better quality than those now available. Of course, anyone interested in developing this sort of business would have to study the markets and specialize in growing and processing the herbs needed.

CULTURE

Site

Unless you are growing herbs commercially you will need only a small herb garden. One short row of each of the annuals and about half a dozen plants of each of the perennials are enough for most families.

Have the herb garden in a protected area in full sun, preferably near the house. Besides having culinary value, some of the herbs are also fragrant and ornamental.

Soil and fertilizer

Most herbs grow satisfactorily on well-drained sandy loam. However, a few like mint and parsley do better on soils that retain moisture and yet have good drainage.

Herbs need some fertilizer, though most of them seem to do better on a poor soil than on a very fertile one. If the soil is particularly rich in nitrogen, for example, the plants are very vigorous but the large leaves may not contain enough of the essential oils needed for flavor and fragrance.

When planting annual or biennial herbs, apply about the same amount of fertilizer and manure as you would use for a good crop of beans. Perennials need more than this, as they remain in the same location for several seasons; for best results, apply well-rotted manure

or compost with additional superphosphate (560 kg/ha) before planting.

Propagation

Most of the common herbs are easily propagated from seed, cuttings, division, or layering.

SEED Sow seeds of annuals and biennials, and of most of the perennials covered in this publication, directly in the garden after the soil has warmed up and the danger of frost is over. To grow those that are more difficult to start, seed in the greenhouse and transplant later.

Sow seeds at the proper depth and rate, in a well-prepared seedbed. The rate is easier to control if you mix small seeds with cornmeal or sand. This also marks the row and helps you identify the young seedlings when they emerge.

CUTTINGS For most herbs, stem cuttings 7–10 cm long taken from new growth can usually be rooted successfully in sand or vermiculite. Remove all the leaves except the buds and young leaves on the upper third of the cutting. Plant the cuttings in moist sand or vermiculite and be sure to protect them from the direct sun. After 4–6 weeks they should be ready to pot or to set out in the garden.

DIVISION To propagate plants like chives or garlic, divide the crown clumps into separate bulbs or individual plants and replant. It is best to do this in the spring so that the plants have time to become reestablished before cold weather.

LAYERING To propagate by layering, cover the side branches of the plant with soil, leaving the tops exposed. When the covered portion of a branch has rooted, cut it off from the parent plant and set it out. Thyme and most of the mints can be propagated this way but mint plants also send out underground runners, which are usually used for propagation.

Care

Like any garden crop, herbs need to be kept free from weeds and this is usually done by hand. Few chemicals for weeding herbs have been developed, and besides, the plot is usually too small to make it worthwhile. Any cultivation beyond weeding should be kept to a minimum to avoid damage to the root system.

With perennials you may have to apply a mulch to avoid winter injury. Also, to break the force of the drying winds, cover the tops of the plants with straw or evergreen boughs.

Insects and diseases

Few of the savory herbs are attacked by disease or insect pests, particularly in a small garden. With large commercial plantings sometimes there are problems, such as rust on mint or aphids on caraway and dill, which can best be solved by consulting a provincial agricultural extension worker.

Harvesting

The leaves and seeds are the parts of the plants most commonly used. Since most of the flavor comes from the volatile oils, which are in small glands in the leaves or seeds, the plants must be harvested when the oils are at their best. For the leaves, this time is usually just before the flower buds open out. Seeds are generally harvested when the color changes from green to brown, before any shelling occurs.

Drying

Always dry herbs thoroughly before storing them, so that they will keep. You may dry the seeds in almost any warm, dry place, but leaves usually keep their color better if they are dried in the dark. For this reason, an airy, darkened room, ventilated with forced air if necessary, is an ideal place. With the less-succulent leaf herbs, such as thyme, sage, and summer savory, part of the drying may be done in the sun without affecting the color.

To dry the leaves, tie the stalks in bunches and hang them up, or spread the leaves out on screens. Dry tender leaf herbs, such as basil or mint, rapidly to avoid discoloration and mold.

Some people dry herbs in an open oven at a low heat (about 120°C). This is a quick method but the heat must be carefully controlled to avoid evaporating the oils and discoloring the leaves.

When the leaves are dry and crisp, rub them through a sieve to powder them. Separate the bits of stem from the powdered herb either by hand or with one of the machines available for this purpose.

Pack the dried herbs in dark glass containers with tight screw caps, or in airtight tin cans, and store them in a dry place away from direct light.

DESCRIPTIONS AND USES

The various savory herbs grown at Kentville are described below. Information on growing, harvesting, and using each of the herbs is included.

Annuals

ANISE This very slow growing, low-spreading plant seems to lack vigor and is easily damaged. It reaches a height of 45 cm.

Sow fresh seeds (they are viable for only 2 years). Thin the plants to about 10 cm apart. Weed very carefully.

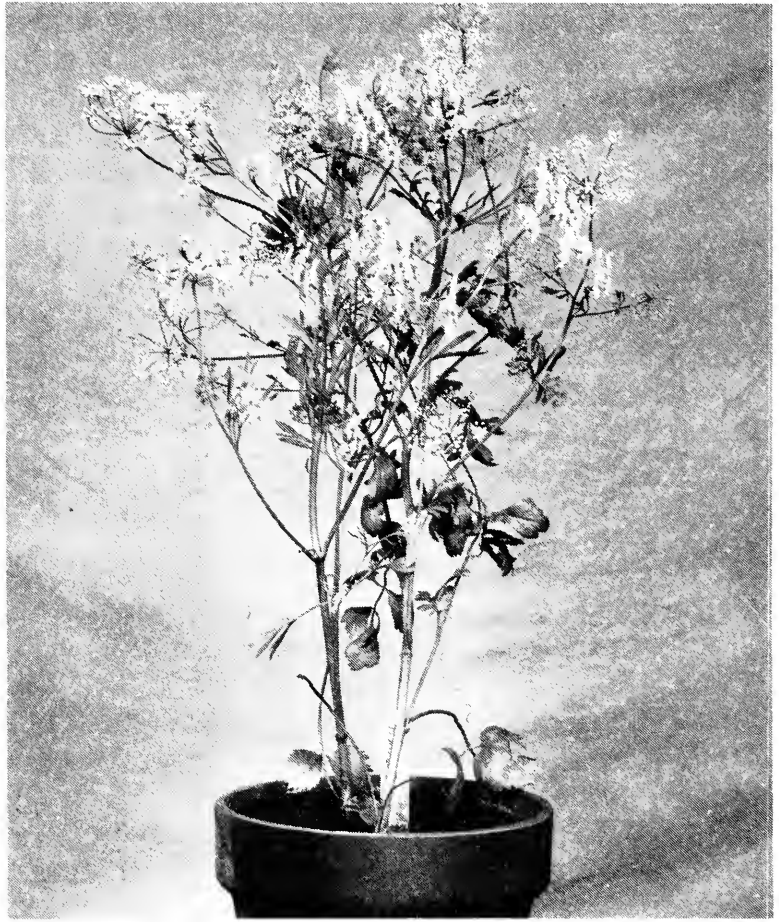
Harvest when the seeds turn brown. Use the licorice-flavored seeds in pastries.

SWEET BASIL The branching plant is 45–50 cm high and has light green, oblong leaves.

Seed in the early spring in the garden and later thin to 5–7 cm apart.

Harvest the leaves for drying when flowering begins. Cut off the plants 10–15 cm above the ground.

ANISE



SWEET
BASIL



Use the leaves, either fresh or dried, for seasoning vegetables and meats.

BORAGE The plant grows about 65 cm high and is bushy. The leaves are heavy and velvety. The blue flowers are arranged in drooping clusters.

Seed early in the spring, preferably on a light sandy soil. Later thin so that the plants are 30 cm apart.

Use the young leaves, which have a cucumber flavor, in salads and pickles.

CORIANDER This small plant has delicate, lacy leaves. The flower umbels are pinkish white. At Kentville this plant grew very slowly and did not develop mature seed.

Start the plants in the greenhouse and later transplant to a light sandy loam.

Harvest the plants when the seeds turn brown and before any shattering occurs.

Use the seeds in cookies and pastries.

DILL The tall, vigorous plant has bluish green stems, yellowish flowers, and finely divided, plumelike leaves that are yellowish green.

Dill grows easily from seed sown in the spring. Thin plants to 25 cm apart.

Cut the plants when the earliest seed is ripe.

Use the leaves and seed stalks immediately after harvest for pickling.

SUMMER SAVORY This plant grows 40–45 cm high and is bushy. The small leaves are bronze green.

Savory grows easily from seeds sown early in the spring. Sow 30–35 seeds to a metre. Do not thin.

You may use the tender, fresh leaves and stems any time during the season, but for drying cut off the leafy tops when the flowers are in bud. After drying and sifting, remove the small bits of stems.

Use in poultry dressing and for flavoring meats and vegetables.

Biennials

CARAWAY This plant grows to a height of 60 cm or more. It flowers and produces seeds in the second year.

The plant, with its finely cut leaves, resembles carrot.

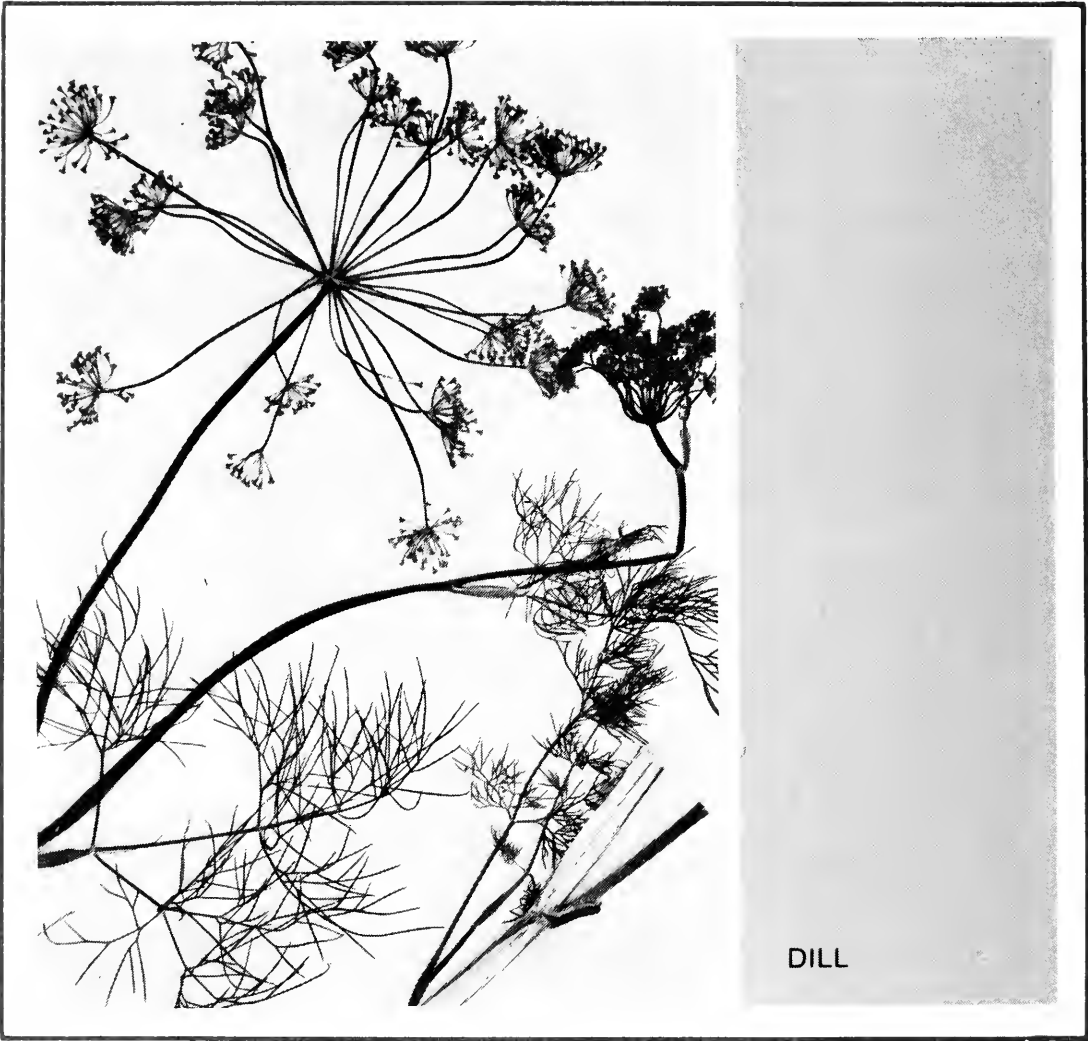
The seed may be slow to germinate if sown too early in the spring. Thin the plants to 5–7 cm apart.

Cut the fruiting umbels when they turn brown and let them dry.

Use the seeds for flavoring cookies and many other foods.

PARSLEY Though a biennial, parsley is usually treated as an annual. The bushy plant grows 30–40 cm high. The leaves are much divided and curly.

Seed early in the spring, preferably in the greenhouse for transplanting. Space the plants 15–20 cm apart in the row. For winter use,



the plants may be potted.

Since the leaves are generally used fresh, cut them when you need them.

Use for flavoring and garnishing meats, vegetables and salads.

Perennials

BALM This spreading, vigorous plant has grayish green, wrinkled leaves with a strong lemon scent.

Plant either seed or divisions of the plant on a dry, light sandy soil. Space the plants 40–45 cm apart.

Use the leaves for flavoring tea, soups, or salads.

CHIVES A small perennial, onionlike plant, chives grows in clumps and has very decorative, violet-colored flowers.

Plant seed or divisions of the bulbs in the spring the same as you plant onions.

The tender leaves have a delicate onion flavor. Use them in salads and for seasoning meats and vegetables.

SWEET FENNEL This plant is large and branching. The leaves are bright green and feathery in appearance.

Sow the seed outdoors on fertile soil in the early spring. A sunny area is best.

Harvest the tender flower stalks just before bloom, and eat them like celery. The seeds are used for flavoring.

GARLIC Garlic is a flat-leaved, onionlike plant.

It is propagated by sets. Plant the sets annually, as for onions, or treat as a perennial.

When the bulbs are harvested they break into small sections called cloves. Use these for seasoning meats, vegetables, sauces, and other foods.

HOREHOUND This plant is somewhat low and spreading and has grayish green, crinkled leaves.

Plant root divisions, cuttings, or seed on light sandy loam. Space the plants 30–40 cm apart.

Use the leaves sparingly in salads. Horehound is also used for flavoring candy.

HYSSOP This shrublike, evergreen plant makes a very good hedge. It has blue flowers in spikes, small pointed leaves, and woody stems that grow about 60 cm high.

Propagate by seed or root division. Space the plants 30 cm apart. Hyssop grows best on well-limed, light sandy loam.

Use the leafy tops sparingly in salads.

SWEET MARJORAM Though this herb is a perennial, at Kentville it is treated as an annual as it does not appear to overwinter.

The plant is low and spreading, reaching 20–30 cm in height. It has small, oval, gray-green leaves that are velvety to touch.





PEPPERMINT



SPEARMINT

Start plants from seed, cuttings, or crown divisions. If you use seed it may be better to sow it in the greenhouse and later transplant to the field. Space the plants 15–20 cm apart. A fertile, moist soil is desirable.

Harvest the leaves when the flower buds are formed. Use them fresh or dried as a seasoning for poultry and other meats.

PEPPERMINT and **SPEARMINT** Although there are several species of mint, peppermint and spearmint are the two most usually grown. Peppermint has numerous reddish-tinged stems with oval, dark green leaves. Spearmint leaves are pointed and slightly crinkly. Both species usually reach a height of about 60 cm.

Propagate by surface or underground runners in a rich moist soil. At Kentville a rust disease (caused by *Puccinia mentha*) damages mint severely in some years; it is difficult to control.

Harvest the leaves for drying just as flowering begins. Fresh leaves may be cut any time. Mint oil is obtained by distilling the plants at the flower bud stage.

Use the dried or fresh leaves for flavoring drinks and mint sauce, and the oil in candy or wherever you want a mint flavor.

RUE The plants are 40 cm high and have much-divided, blue green leaves and small yellow flowers.

Seed in the early spring on a well-drained moist soil, and later thin the plants to 40 cm apart in the row.

Use the green leaves sparingly to flavor sandwiches or salads.

SAGE This plant usually grows 60 cm high and is branched and sprawly in habit. The leaves are oblong, grayish green, and woolly in appearance.

Propagate by seeds, stem cuttings, or crown divisions. Space the plants 10–15 cm apart. Sage grows best in a well-drained, light soil in a sunny location.

Cut off the top 15–20 cm of the plants before they bloom and dry them by hanging up or spreading out on a screen.

Use to season meats and dressings.

SORREL The plant is tall and spreading and has large leaves shaped like shields.

Plant either seed or plant divisions in a sunny, moist area. Space the plants 30 cm apart.

Use the green leaves very sparingly in salads or soups.

THYME This low-growing plant (height 15–20 cm) has stems that are stiff and woody. The leaves are small, oval, and grayish green. The lilac flowers are borne in small clusters.

Propagate by cuttings, divisions, or seed sown early in the greenhouse. Set the plants in the field 30–45 cm apart. New plants should be started every few years to renew the bed.

Cut the leafy tops and flower clusters just before the first flowers open, and dry them.

Blend with other herbs for seasoning meats, vegetables, soups, and sauces.



Scientific names of savory herbs

anise	<i>Pimpinella anisum</i>
balm	<i>Melissa officinalis</i>
basil, sweet	<i>Ocimum basilicum</i>
borage	<i>Borago officinalis</i>
caraway	<i>Carum carvi</i>
chives	<i>Allium schoenoprasum</i>
coriander	<i>Coriandrum sativum</i>
dill	<i>Anethum graveolens</i>
fennel, sweet	<i>Foeniculum vulgare</i>
garlic	<i>Allium sativum</i>
horehound	<i>Marrubium vulgare</i>
hyssop	<i>Hyssopus officinalis</i>
marjoram, sweet	<i>Marjorana hortensis</i>
parsley	<i>Petroselinum crispum</i>
peppermint	<i>Mentha piperita</i>
rue	<i>Ruta graveolens</i>
sage	<i>Salvia officinalis</i>
savory, summer	<i>Satureja hortensis</i>
sorrel	<i>Rumex scutatus</i>
spearmint	<i>Mentha spicata</i>
thyme	<i>Thymus vulgaris</i>

Agriculture Canada Publication 1374, *Using savory herbs*, contains additional information on buying, storing, and using herbs.

CONVERSION FACTORS

Metric units	Approximate conversion factors	Results in:
LINEAR		
millimetre (mm)	x 0.04	inch
centimetre (cm)	x 0.39	inch
metre (m)	x 3.28	feet
kilometre (km)	x 0.62	mile
AREA		
square centimetre (cm ²)	x 0.15	square inch
square metre (m ²)	x 1.2	square yard
square kilometre (km ²)	x 0.39	square mile
hectare (ha)	x 2.5	acres
VOLUME		
cubic centimetre (cm ³)	x 0.06	cubic inch
cubic metre (m ³)	x 35.31	cubic feet
	x 1.31	cubic yard
CAPACITY		
litre (L)	x 0.035	cubic feet
hectolitre (hL)	x 22	gallons
	x 2.5	bushels
WEIGHT		
gram (g)	x 0.04	oz avdp
kilogram (kg)	x 2.2	lb avdp
tonne (t)	x 1.1	short ton
AGRICULTURAL		
litres per hectare (L/ha)	x 0.089	gallons per acre
	x 0.357	quarts per acre
	x 0.71	pints per acre
millilitres per hectare (mL/ha)	x 0.014	fl. oz per acre
tonnes per hectare (t/ha)	x 0.45	tons per acre
kilograms per hectare (kg/ha)	x 0.89	lb per acre
grams per hectare (g/ha)	x 0.014	oz avdp per acre
plants per hectare (plants/ha)	x 0.405	plants per acre

